REMARKS

Reconsideration and further examination of this application is respectfully requested. Claims 1-17 where originally presented for examination. Claims 1, 4-6, 9, 12, and 14-16 have been amended. Claims 2, 3, 10, 11 and 17 have been cancelled without prejudice. Claims 7, 8 and 13 are presented without further amendment.

The title was objected to and has been amended to provide a more descriptive title.

The drawings were objected to and have been amended in a separate letter to the official draftsman.

Claim 2 was objected to and has been cancelled to render that objection moot.

Claim 9 was objected to and has been amended to correct the typographical error.

Claim 16 was objected to and has been amended to overcome the objection.

Claims 1-7, 12-15 and 17 were rejected under 35 USC § 102(e) as being unpatentable over Son et al.

Son et al. discloses a method and apparatus for content distribution via non-homogeneous access networks. As shown in Figure 1 of Son et al., the local head end 101 includes a streaming cache server 102 that stores video data. The video data is transmitted to various computer terminals 116, 122, 132 via a stream distribution network 104, data link converters 112, 111, 126 and LAN/WAN 106, carrier network 108 and cable network 110, respectively. Storage medium 148 stores compressed MPEG packets that are encapsulated in the portion of the payload of an IP packet. Son et al. also discloses the use of real time transport packets as disclosed in paragraph 30 and Figure 3B. All of the packets transmitted from the local head end 101 to the stream distribution network 104 constitute IP packets, as disclosed in paragraph 033 of Son et al. As disclosed in paragraph 046, video data transmitted to computer terminal 132 is encapsulated in a MAC layer 156 which, in turn, is encapsulated as an IP packet 300. The IP packets are transmitted to stream distribution network 104 and to data link converter 126. Data link converter 126 is modulated over the cable network 110 for transmission to the computer terminal 132.

Currently amended independent claims 1 and 12 clearly distinguish from the Son et al. reference. As disclosed in Son et al., the video data is <u>stored in the head end 102 in</u>

the storage medium 148 and requests are made to the head end for the video data. Data from the head end is then encapsulated by switch 142 and packet processor 144 of Son et al. into IP packages which are transmitted over IP networks 104, 111, not a cable network.

Applicant's claimed invention differs substantially from Son et al. Video servers that provide the video data are not part of the cable system operated by the cable system provider and are not located at the head end. For example, claim 1 recites "to deliver video data on-demand from video servers operated by a content provider." In addition, claim 1 recites "generating a request for a listing of video programs available from said video servers operated by said content provider, that are not part of said cable system operated by said cable system provider." Claim 12 has similar limitations.

The presently claimed invention, in contradistinction, is directed to a system for providing content from a content provider that is not part of the cable system that is operated by the cable system provider. For example, as disclosed in the Description of the Background, "the ability to provide access to large databases that can be made available from content providers has also posed many significant problems. For these reasons, it would be desirable to provide a video-on-demand system, or more generally, a data-on-demand system that allows a user to access large databases that can be made available from content providers and to display or otherwise make available selected video or other data according to a user's schedule. Further, it would be desirable to provide a system that allows a user to access any large database in an on-demand fashion." As disclosed on page 5, lines 20+, "content servers 60, 62, 64 can comprise any number of different servers that have access to very large databases with a large amount of content. For example, Turner Broadcasting may own rights to display thousands of movies that are stored in a database and accessible through a content server that is operated by Turner Broadcasting."

Hence, claim 1 and claim 12 specifically differentiate from the disclosure of the streaming caching server 102 and storage medium 148, since server 102 and storage medium 148 are located at local head end 101 of Son et al.

In addition, Son et al. provides requests for the data through the head end. As specifically recited in claim 1, for example, "generating a request for a listing of video

programs ... to said content provider <u>without going through a head end of said video</u> <u>cable system</u>." Further, claim 1 recites "providing said listing of said video programs ... transmitted ... through said managed network, said internet service provider and said cable system to said cable system user <u>without going through said head end</u>." In addition, claim 1 recites "generating a request for said video data, ... through said cable to said internet service provider <u>and</u> said managed network <u>without going through said</u> <u>head end</u>." Clearly, claim 1 specifically requires that the video servers not be operated by the cable system provide and that the communication between the set top box and the content servers doesn't go through the head end. This is completely contrary to the disclosure of Son et al. since Son et al. requires that the data be stored in the head end and that the head end operate the video server. Claim 12 has similar limitations.

In addition, claim 1 requires that <u>the data not be stored at the head end</u>. For example, claim 1 recites "using a first transport mechanism that is compatible with the managed network to transmit said video data from said video servers through said managed network, with a guaranteed quality of service that is sufficient to view said video data <u>without storing said video data at said head end</u>." In addition, claim 1 recites "converting said first transport mechanism to a second transport mechanism <u>that is</u> <u>compatible with said video cable system at said head end; transmitting said video data</u> <u>from said head end to said user through said video cable system using said second</u> <u>transport mechanism that is compatible with said set top box</u>." This does not occur in Son et al. The data is not transformed to a second transport mechanism at the local head end 101 of Son et al. and then transmitted from the local head end through the video cable system using the second transport mechanism <u>that is compatible with the set top</u> <u>box</u>. The data of Son et al. is transmitted in accordance with an IP transport mechanism from the head end 101 and then later stripped of the IP transport mechanism and modulated onto the cable network 110 by data converter 126. Hence, for this additional reason, Son et al. clearly differs in a substantial manner from that which is claimed in claim 1. Claim 12 has similar limitations.

In essence, Son et al. constitutes a system that is directed to a completely different problem which is the distribution of data over various networks wherein the data is stored at the head end. Applicant's claimed invention is directed to a system for accessing very

large databases that are not part of the cable system operated by the cable system provider.

Claim 8 was rejected under 35 USC § 103(a) as being unpatentable over Son et al. in view of Mimura et al. Claim 8 is considered to distinguish over Son et al. and Mimura et al. for the reasons provided above.

Claim 16 was rejected under 35 USC § 103(a) as being unpatentable over Son et al. in view of Hodge. Hodge et al. discloses an interactive digital program material encoder and system. The encoder 11 is located at the head end of the television program material distribution center. The encoder maps relatively large ethernet addresses to smaller MPEG-2 addresses by converting the internet address to a number uniquely associated with the program material.

Hodge et al. does not disclose the use of a managed network to ensure delivery of data in a timely fashion. Independent claims 1 and 12 clearly distinguish from Hodge et al. For example, claim 1 recites "a method of using a managed network ... to deliver video data on-demand." Claim 1 also recites "using a first transport mechanism that is compatible with said managed network to transmit said video data ... through said managed network with a guaranteed quality of service that is sufficient to view said video data." Similar limitations are included in claim 12.
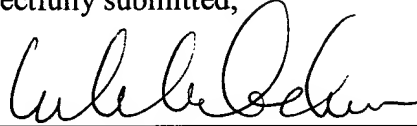
Clearly, there is no disclosure or suggestion, in any fashion, of using a managed network to ensure delivery of the data. In fact, content server 13 is also located at the head end and as such, may not require a managed network. Claims 1 and 12 also distinguish from Hodge et al. since both independent claims 1 and 12 require that the content server not be located at the head end, as explained in detail above. In addition, communications between the user and the content server necessarily are transmitted through the head end in Hodge since the content server 13 is located at the head end. For all of the reasons explained above with regard to Son et al., claims 1 and 12 both distinguish from Hodge for this additional reason.

In view of the above, this application is now considered to be in condition for allowance and such action is earnestly solicited.

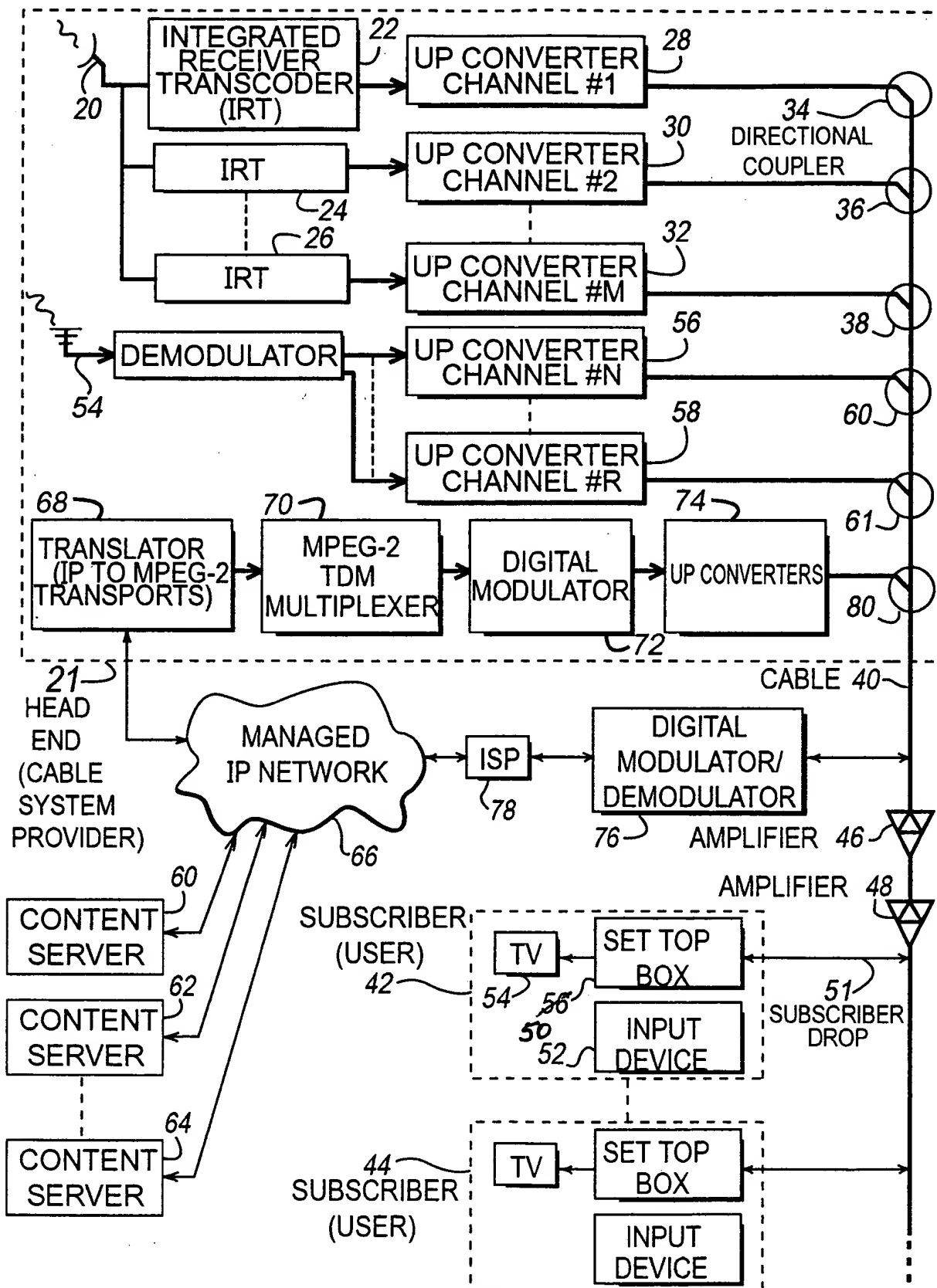Dated this 1st day of March 2005.

Respectfully submitted,

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FIGURE 2